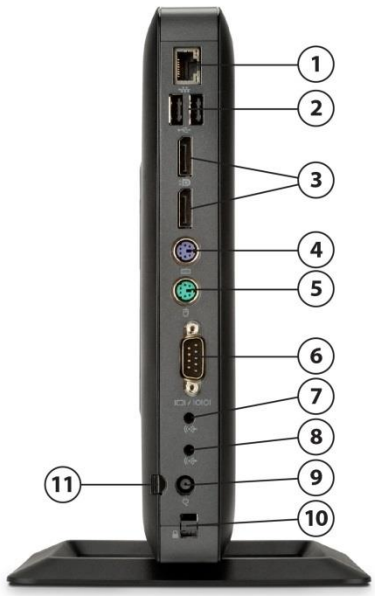
Overview

HP t620 Flexible Series Thin Client

FRONT

1. Power button (with integrated power indicator light)
2. Flash memory activity indicator light
3. USB 2.0 ports
4. USB 3.0 ports
5. Audio connector (mic/line in)
6. Audio connector (headphone/line out)
7. VESA 100 mounting system
8. System stand required for either vertical or horizontal orientation



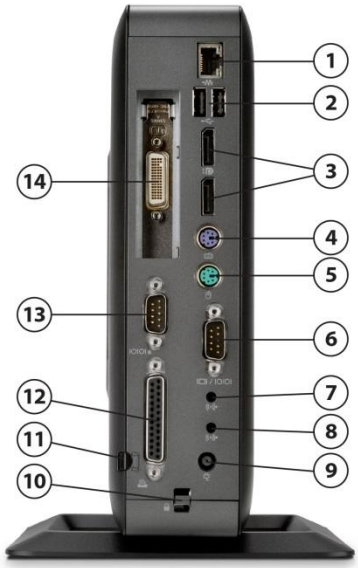
BACK

1. Gigabit Ethernet RJ-45 connector
2. USB 2.0 ports (2)
3. DisplayPort 1.2 digital video outputs (2)
4. PS/2 keyboard connector
5. PS/2 mouse connector
6. Option connector (may be configured as serial, VGA, or fiber optic SC connector from factory)
7. Audio line in
8. Audio line out
9. +19V DC power input
10. Cable lock slot
11. Power cord retention clip

Overview

HP t620 PLUS Flexible Series Thin Client

FRONT



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7. Audio line in
8. Audio line out
9. +19V DC power input
10. Cable lock slot
11. Power cord retention clip
12. Parallel port
13. Serial port
14. PCI Express (half-height) card slot (in quad-head video configurations - 2 x DVI-I ports

AT A GLANCE

Hardware features:

Overview

- Two base platforms:
  - t620
  - t620 PLUS (supports greater configuration expansion)
- Three processor/graphics options:
  - t620:
    - AMD G-Series GX-415GA SOC: 1.5 GHz quad-core APU with Radeon HD 8330E graphics
    - AMD G-Series GX-217GA SOC: 1.65 GHz dual-core APU with Radeon HD 8280E graphics
  - t620 PLUS:
    - AMD G-Series GX-420CA SOC: 2.0 GHz quad-core APU with Radeon HD 8400E graphics
- AMD Radeon HD integrated graphics with hardware acceleration of streaming video formats and DirectX 11.1 support.
- DDR3L-1600 SDRAM; two SODIMM slots; up to 16 GB supported
- Flash memory solid state modules; mSATA and M.2 form factors[2]
- Active thermal management monitors component operating temperatures, throttles SOC operation if appropriate, and prevents unit thermal shutdown
- Dual digital DisplayPort 1.2 video outputs supporting up to 2560 X 1600; optional analog VGA port factory configuration for legacy monitors
- HP t620 PLUS can be configured to support quad video displays with a factory-installed AMD FirePro 2270 dual head discrete video card; when combined with on-board DisplayPort video outputs this configuration provides up to 4 digital video outputs
- Network connection supported via an integrated Gigabit Ethernet NIC. An optional Fiber Fast Ethernet NIC or Fiber Gigabit NIC is available as well as optional Wi-Fi adapters including antennas integrated internally in the chassis. (Note: Fiber optic and Wi-Fi NIC options cannot be supported together)[3]
- USB ports: 2 x USB 3.0 and 2 USB 2.0 on front, 2 x USB 2.0 on rear, and 2 x USB 2.0 secured inside the chassis.
- Legacy ports (t620): 1 x PS/2 keyboard and PS/2 mouse, and 1 x serial or VGA (factory-configurable port)
- Legacy ports (t620 PLUS): 1 x PS/2 keyboard and PS/2 mouse, 2 x serial, and 1 x parallel
- Audio ports on front and rear
- Security features: TCG certified TPM chipset[1], BIOS designed to address NIST SP 800-147 guidelines, cable lock slot, and power cord retention clip to prevent accidental disconnects, rear port cover & case intrusion detection options; 2 internal USB 2.0 ports for securing USB flash drives and dongles
- t620 PLUS expansion: Half-height PCI Express x4 (physically x16) expansion slot (not available with quad-head configuration)
- ENERGY STAR® certified and EPEAT® Gold registered in the United States (except for some models with quad-head video or Fiber NIC networking options installed). See http://www.epeat.net for registration status in other countries.
- Post-consumer recycled plastics content greater than 25% total unit plastics (by weight)
- Low halogen[4] material content

- All models TAA Compliant (in North America & EMEA)

1 With 32-bit operating systems, memory above 3 GB may not all be available due to system resource requirements.
2 For SSD's GB = 1 billion bytes. Actual formatted capacity is less.
3 Wireless access point and internet access required. Availability of public wireless access points required.
4 This product is low halogen except for power cords, cables and peripherals, as well as the customer-configurable 100 Mbps Fiber NIC module which are not Low Halogen. Service parts obtained after purchase may not be Low Halogen.

Software features for HP t620 with HP ThinPro and HP Smart Zero Technology software:

- HP ThinPro and HP Smart Zero Technology are HP's purpose-built thin client operating systems built from

Overview

Linux

- HP ThinPro offers an easy-to–use, easy-to-configure, locked-down interface -- HP Connection Manager -- that allows administrators to quickly create server connections for end users.
- HP Smart Zero Clients using Smart Zero Client Technology boot directly into a user log-in on the server or portal for which they are configured. No local thin client user interface means the end-user can get to work without special training on the access device. The Smart Zero Technology reduces the administrative burden by enabling the IT administrator to perform the configuration settings on the server and the settings will be automatically applied to HP thin clients plugged in to the network.
- ICA and RDP support for accessing Citrix and Windows resources
- VMware Horizon View PCoIP support for accessing VMware Horizon View sessions
- VDI broker support includes VMware Horizon View, Citrix XenDesktop (with CDA mode utility),
- Multimedia and USB redirection support
    - Citrix HDX MediaStream (multimedia redirection)
    - Citrix HDX Plug-n-Play (USB redirection)
- Improved end user experience with HP Velocity
    - Enables IT managers to monitor network activity and optimize end-user experience
    - Intelligently reduces network retransmissions due to packet loss, providing a better user experience
    - Built in monitors enable remote debugging and troubleshooting.
    - Available only on HP thin clients.
    - For details visit: http://www.hp.com/go/velocity

Software features for Genuine Windows Embedded Standard 7E (WES 7E):

- Microsoft® Windows Embedded Standard 7E SP1 with support for RemoteFX and local applications, providing a richer user experience
- Internet Explorer 9 for genuine Internet Explorer browsing and Web-application interfaces
- Excellent rich multimedia experience and enhanced USB device support in VDI environments
- Latest protocol support from Citrix On-Line Plug in (ICA) 4.1, RDP 8.1 w/RemoteFX, and VMware Horizon Client 2.3.3
- Enhanced Write Filter and File-Based Write Filter provide complete flexibility to protect the entire Flash disk, or configure areas of the disk for persistent access by local applications
- Microsoft Firewall for enhanced data security
- Support 802.1x LAN-based authentication for greater security
- HP Universal Print Driver provides instant access to a range of HP print devices without downloading separate
- Improved end user experience with HP Velocity
    - Enables IT managers to monitor network activity and optimize end-user experience
    - Intelligently reduces network retransmissions due to packet loss, providing a better user experience
    - Built in monitors enable remote debugging and troubleshooting.
    - Available only on HP thin clients.
    - For details visit: http://www.hp.com/go/velocity

Software features for Genuine Windows Embedded Standard 7P (WES7P):

In addition to the software features in WES7E:

- A 64-bit OS for improved performance and support for larger memory installations (up to 16 GB)
- Windows Touch (Multi-touch support) for touch-screen monitors
- Multi-language support brings multilingual capabilities letting users select a preferred display language, or to easily install a number of other languages
- DirectAccess feature allows remote users to securely access enterprise shares, websites, and applications without connecting to VPN
- BrancheCache WAN optimization technology
- AppLocker application “whitelisting”
- AntiMalware and Windows Defender software providing additional protection from virus, worms, and spyware
- Snipping tool for easy screen capture copying and pasting
- Remote media streaming to enhance multimedia user experience

Overview

- Photo Viewer for easy image viewing
- Improved end user experience with HP Velocity
    - Enables IT managers to monitor network activity and optimize end-user experience
    - Intelligently reduces network retransmissions due to packet loss, providing a better user experience
    - Built in monitors enable remote debugging and troubleshooting.
    - Available only on HP thin clients.
    - For details visit: http://www.hp.com/go/velocity

Software features for Genuine Windows Embedded 8 Standard:

- The newest Microsoft embedded software based on Windows 8
- A 64-bit operating system for improved performance and support for larger memory installations (up to 16 GB)
- Smooth, immersive experiences with technologies like advanced Multi Touch and Windows 8 applications
- The latest RDP8.1 and Remote FX client software
- Windows Embedded 8 Standard offers a secure platform that is intelligent systems ready
- Latest Internet Explorer 10 for genuine Internet Explorer browsing, HTML 5 support and Web-application interfaces
- Latest protocol support from Citrix, VMware and RDP
- Excellent rich multimedia experience and enhanced USB device support in VDI environments
- Improved end user experience with HP Velocity
    - Enables IT managers to monitor network activity and optimize end-user experience
    - Intelligently reduces network retransmissions due to packet loss, providing a better user experience
    - Built in monitors enable remote debugging and troubleshooting.
    - Available only on HP thin clients.
    - For details visit: http://www.hp.com/go/velocity

All Windows Embedded 8 Standard devices must be activated. Customers have the option via Internet connection, telephone, or indirectly through a proxy for large deployments.

Warranty:

HP Total Care Warranty and Services: limited three-year hardware warranty in most regions. HP Care Pack Services extend service contracts beyond your standard warranties. For more details visit http://www.hp.com/go/lookuptool.

Technical specifications

OPERATING SYSTEMS

HP ThinPro (32-bit)
HP Smart Zero Core (32-bit)
Windows Embedded Standard 7E (32-bit)
Windows Embedded Standard 7P (64-bit)
Windows Embedded 8 Standard (64-bit)

PROCESSOR / CHIPSET

t620 thin client
AMD G-Series GX-217GA SOC; 1.65 GHz dual-core APU with AMD Radeon HD 8280E (450MHz GPU) Graphics
AMD G-Series GX-415GA SOC; 1.5GHz quad-core APU with AMD Radeon HD 8330E (500MHz GPU) Graphics

t620 PLUS thin client
AMD G-Series GX-420CA SOC; 2.0 GHz quad-core APU with AMD Radeon HD 8400E (600MHz GPU) Graphics

MEMORY

Type	**DDR3L-1600 SODIMM SDRAM**
Data Rate	**1600 MT/s**
Peak Transfer Rate	**12800 MB/s**
Number of slot	**2 SODIMM slots**
Available Capacities	**2GB, 4GB, 8GB, 16GB**
System memory reserved for graphics[1]	**512MB**

[1] The system's Graphics Processing Unit (GPU) uses part of the total system memory. System memory dedicated to graphics performance is not available for use by other programs.

STORAGE

Type	Flash memory based modules Single storage drive supported
Storage drive slots	1 mSATA slot 1 M.2 slot
Capacities	8GB MLC (M.2 only) 16GB MLC (mSATA or M.2) 16GB Ultra MLC (M.2 only) 32GB MLC (mSATA or M.2) 64 GB MLC (mSATA or M.2) 128GB MLC (M.2 only)

Note: the t620 & t620 PLUS thin clients only support a single flash memory module. Systems will ship with either a mSATA module or a M.2 module depending upon supply and availability.

GRAPHICS

AMD Radeon HD 8280E/8330E/8400E graphics (varies by model)	
Mode	**Refresh rate (Hz)**

Technical specifications

800 x 600	60, 75, 85
1024 x 600	60, 75, 85
1024 x 768	60, 70, 75, 85
1152 x 864	60, 75, 85
1280 x 720	60, 75, 85
1280 x 768	60, 75, 85
1280 x 800	60
1280 x 960	60, 75, 85
1280 x 1024	60, 75, 85
1366 x 768	60
1400 x 1050	60, 75, 85
1440 x 900	60, 75, 85
1600 x 900	60
1600 x 1200	60, 75 ,85
1680 x 1050	60
1920 x 1080	60, 75, 85
1920 x 1200	60, 75
2048 x 1536 (DisplayPort only)	60
2560 x 1440 (DisplayPort only	60
2560 x 1600 (DisplayPort only)	60

NOTE: This table represents a sample of possible modes that this controller is capable of displaying but various factors such as the capability and EDID information returned by the attached monitor, the interface used (DVI-I/DisplayPort or optional D-SUB with dongle), and dual monitor mode may limit the availability of modes, color depth, and/or refresh rate..

t620 PLUS Quad-Head Digital Display Configuration

AMD FirePro™ 2270 Multi-View Professional Graphics dual-head graphics card[1]
Up to two monitor ports on the dual-head card work in addition to the two monitor ports on the motherboard to provide quad-head capabilities at a bargain price. Optional output dongles can provide dual DisplayPort outputs from the graphics card if desired. With the DisplayPort adapter on the graphics card and on the motherboard, up to four 2560x1600 displays can be connected simultaneously.

- Factory installed option; installed in the system's PCI Express expansion slot
- 512MB memory
- PCIe 2.1, x1
- DMS-59 (ships with dual DVI-I dongle)
- Maximum resolution as shipped
  - DisplayPort: 2 x 2560x1600 (on motherboard)
  - DVI: 2 x 1920x1200 (from graphics card)
- Maximum resolution with optional DMS-59 to DisplayPort adapter:
  - 4 x DisplayPort: 2560x1600 (2 on motherboard & 2 from graphics card)
- OpenGL 4.1

[1]**NOTE:** If you attach the primary display to the AMD 2270 video card, the BIOS post information will not be displayed to the monitor at system startup. The display will turn on when the operating system starts. To view BIOS post information, attach the primary display to DP connectors on the rear panel.

INPUT/OUTPUT (peripheral support)

Keyboard	USB or PS/2 (varies by region)

Technical specifications

Mouse	USB or PS/2 (varies by region)
Printer	Local and/or network printers (RDP, ICA, LPD)
Video outputs	All models include two (2) DisplayPort with multi stream video outputs Systems can be configured with an optional VGA analog video output. When configured with the VGA output only one DisplayPort output is active. t620 PLUS models can be configured with an optional AMD FirePro 2270 discrete graphics solution that provides two (2) additional digital video streams for a total of four (4) video outputs

AUDIO/VIDEO

Output	Internal amplified speaker 1/8-inch stereo mini jack (headphones, on front panel) 1/8-inch stereo mini jack (line out, on rear panel) Full 24-bit stereo up to 192-kHz sample rate.
Input	1/8-inch mini jack microphone (on front panel) 1/8-inch stereo mini jack (line in, on rear panel) 24-bit stereo, up to 192 kHz sample rate
Audio CODECS with hardware acceleration support	MP3 AAC stereo & HE AAC WMA stereo
Video CODECS with hardware acceleration support	MPEG-4 part 2 (DivX, Xvid) MPEG-4 part 10 (H.264, AVC) WMV 7/8/9/ VC-1 & ASF Demuxer

HARDWARE SECURITY

Security lock slot (cable lock sold separately)
Built-in power cord retention clip

NETWORKING

Hardware networking

Gigabit Ethernet (RJ-45)
Wake on LAN (WOL)
PXE
TCP/IP with DNS and DHCP

Software networking

			Windows Embedded Standard
	ThinPro	**HP Smart Zero Technology**	**7E/7P/8S**
Point-to-Point Protocol (PPP)			**X**
Point-to-Point over Ethernet (PPPoE)			**X**
Direct Connection through RS-232	**X**	**X**	**X**
Point-to-Point Tunneling Protocol (PPTP)	**X**	**X**	**X**
Layer-2 Tunneling Protocol (L2TP)	**X**	**X**	**X**

Technical specifications

Server Network Time Protocol (SNTP)	X	X	X

WI-Fi (select models)

Adapter	Broadcom 802.11n Wi-Fi Adapter Broadcom 802.11ac Wi-Fi Adapter Intel 802.11ac Wi-Fi Adapter
Form Factor	PCI-Express mini card with dual, internal antennas
Security	Supports 64- and 128-bit WEP, WPA, WPA2, AES, TKIP HP ThinPro and HP Smart Zero Technology: 802.1x authentication types: EAP-TLS, EAP-TTLS, EAP-PEAP, LEAP Windows Embedded Standard 7E, 7P and 8S: 802.1x authentication types: EAP-TLS, EAP-TTLS, EAP-PEAP, EAP-FAST, LEAP

Fiber Optic Network Interface (factory-installed option)

Adapters	Allied Telesis AT-27MINI Fiber Fast Ethernet Network Interface Allied Telesis AT-29MINI Fiber Gigabit Network Interface
Available in	HP t620 and HP t620 PLUS
Form Factor	Custom-designed card plugs into PCI-Express mini card slot
Management Features	WMI, ACPI 2.0/w01, PXE 2.1 boot ROM, SNMP
Ethernet	IEEE 802.1p (Quality of Service) IEEE 802.2 (LLC) IEEE 802.3ac (MAC) IEEE 802.3u (100Mbps) IEEE 802.1as (Audio Bridging) P802.1Qav P802.1Qat (SRP) 1588-2000 (PTP)
Connectors	SC
Optical Specifications	Output Optical Power -20 (min) -17 (typ) -14 (max) dBm Optical Sensitivity -34 (typ) -32 (max) dBm
Maximum Cabling Distance	Full-duplex Up to 2000 m (5,560 ft) Half-duplex Up to 412 m (1,351 ft)
Status Indicators	LED 1 port On 100Mbps link up Blink Activity Off 100Mbps link down
Power consumption	2 Watts (typ)
Compliance	RoHS, UL, FCC/EN55022 Class A, TUV, EN55024, CE, C-TICK, VCCI
Supported by thin client operating systems	HP Smart Zero Technology and HP ThinPro Microsoft WES 7E

I/O PORTS, SLOTS & CONNECTORS

HP t620 thin client	HP t620 PLUS thin client
4 USB 2.0 ports (two in front, two in rear) 2 USB 3.0 ports (in front) 2 USB 2.0 ports (secured inside lockable chassis) 2 DisplayPort with multi stream (rear) 2 PS/2 (1, KB, 1 mouse)(rear)	4 USB 2.0 ports (two in front, two in rear) 2 USB 3.0 ports (in front) 2 USB 2.0 ports (secured inside lockable chassis) 2 DisplayPort with multi stream(rear) 2 PS/2(1, KB, 1 mouse)(rear)

Technical specifications

1 serial (rear) or 1 VGA (rear, option) or 1 Fiber SC (rear, option provided with Fiber NIC option) 1 RJ-45(rear) 1 Headphone (front) 1 Microphone (front) 1 Audio line in (rear) 1 Audio line out (rear)	2 serial (rear) or 1 serial and 1 VGA (option) or 1 Fiber SC (option provided with Fiber NIC option) 1 parallel (rear) 1 RJ-45 (rear) 1 Headphone (front) 1 Microphone (front) 1 Audio line in (rear) 1 Audio line out (rear) 1 Riser Card/Expansion Slot (PCIe 2nd Gen, x16 slot with x4 channels) (rear)

NOTE: The devices connected at boot up or subsequently disconnected determine which video ports are enabled and which is disabled.

- If a VGA device is connected at boot up, then only one DisplayPort port may be used. If the VGA device is subsequently disconnected, then both DisplayPort ports are enabled.
- If a VGA device and one DisplayPort device are connected at boot up, then the other DisplayPort port is disabled. If the VGA device is subsequently disconnected, then that DisplayPort port is enabled.
- If two DisplayPort devices are connected at boot up, then the VGA port is disabled. If one or both DisplayPort devices are subsequently disconnected, the VGA port is enabled.

Presence of an optional VGA or Fiber NIC port does not disable a DisplayPort port.

SERVER OS COMPATIBILITY/SUPPORT

Citrix XenApp 5 and later
Citrix XenDesktop 3 and later
Citrix Presentation Server 4.0 and later
Windows Server 2003
Windows Server 2008r2 Terminal Services
Windows 2012 Server Remote Desktop services
VMware Horizon View Virtual Desktop Infrastructure

SOFTWARE for HP t620 and HP t620 PLUS

Host Environment	Protocol	Smart Zero	ThinPro	Windows Embedded Standard		
				7E	7P	8S
Microsoft Remote Desktop Services	RemoteFX (RFX)	✓	✓	✓	✓	✓
	RDP	✓	✓	✓	✓	✓
Citrix	ICA	✓	✓	✓	✓	✓
	HDX	✓	✓	✓	✓	✓
VMware Horizon View	RDP	✓	✓	✓	✓	✓
	PCoIP	✓	✓	✓	✓	✓

Protocol Clients	Smart Zero	ThinPro	Windows Embedded Standard		
			7E	7P	8S
Citrix Receiver*	13.03	13.03	4.1	4.1	4.1
Microsoft Remote Desktop Client	FreeRDP 1.1	FreeRDP 1.1	8.1	8.1	8
VMware Horizon View Client*	3.1	3.1	CART 2.3.3	CART 2.3.3	CART 2.3.3
Remote Graphics Software (RGS)	via add-on	via add-on	7.0	7.0	7.0
HP TeemTalk Terminal Emulator	7.3	7.3.5	via add-on	via add-on	via add-on
Free RDP	1.1	1.1			

Browser Support	Smart Zero	ThinPro	Windows Embedded Standard

Technical specifications

			7E	7P	8S
Mozilla Firefox	31	31			
Internet Explorer			10	10	10
Security	**Smart Zero**	**ThinPro**	**Windows Embedded Standard** 7E	7P	8S
Smart Card	✓	✓	✓	✓	✓
logon Manager	✓	✓	✓	✓	✓
Read Only Operating System	✓	✓	✓	✓	✓
802.1x	✓	✓	✓	✓	✓
Enhanced Write Filter (EWF) File-Based Write Filter (FBWF) Unified Write Filter (UWF)			EWF, FBWF	EWF, FBWF	UWF, EWF, FBWF
Microsoft Firewall			✓	✓	✓
Microsoft AntiMalware & Windows Defender					
Session brokers	**Smart Zero**	**ThinPro**	**Windows Embedded Standard** 7E	7P	8S
Citrix XenDesktop	✓	✓	✓	✓	✓
VMware Horizon View	3.1	3.1	5.4	5.4	5.4
Management Tools	**Smart Zero**	**ThinPro**	**Windows Embedded Standard** 7E	7P	8S
HP Device Manager	✓	✓	✓	✓	✓
HP ThinState	✓	✓	✓	✓	✓
HP Easy Tools		✓	via add-on	via add-on	via add-on
HP Smart Zero Client Services	✓	✓			
Microsoft SCCM/EDM agent			✓	✓	✓
Additional Components	**Smart Zero**	**ThinPro**	**Windows Embedded Standard** 7E	7P	8S
HP Velocity	✓	✓	✓	✓	✓
HP Connection Manager/ HP Cloud Connection Manager		✓	✓	✓	✓
HP ThinShell			2.1	2.1	2.1
HP Universal Print Driver			✓	✓	✓
Windows Media Player			12	12	12
Windows Touch (Multi-touch support)					
Multilanguage support					
Microsoft DirectAccess				✓	✓*
Microsoft BranchCache				✓	✓*
Microsoft AppLocker				✓	✓*
Microsoft Sideloading				✓	✓*
Audio CODECs included	**Smart Zero**	**ThinPro**	**Windows Embedded Standard** 7E	7P	8S
MP3	✓	✓	✓	✓	✓
WMA stereo	✓	✓	✓	✓	✓
AAC stereo & HE AAC	✓	✓			
Microsoft AC3 encoder			✓	✓	✓
Video CODECs included	**Smart Zero**	**ThinPro**	**Windows Embedded Standard**		

Technical specifications

			7E	7P	8S
MPEG-1	✓	✓			
MPEG-4 part 2 (DivX, Xvid, H.263)	✓	✓	✓	✓	✓
MPEG-4 part 10 (H.264, AVC)	✓	✓	✓	✓	✓
WMV 7/8/9/ VC-1 & ASF Demuxer	✓	✓	✓	✓	✓

***NOTE:** These features are included in the Windows Embedded 8 Standard image, but they are disabled. To unlock these features, the "Windows Embedded 8 Standard Enterprise Kit" must be purchased through Microsoft volume licensing.
NOTE: Other add-on software available (see: www.hp.com/support for latest list of available add-ons). Software performance and support may vary depending on customer environment and backend.

TEXT AND GRAPHICS TERMINAL EMULATIONS *(provided by HP TeemTalk 7 in HP ThinPro, WES 7, and operating systems)*

Emulation	Terminal ID
ADDS A2	
AIXTerm	
ANSI BBS	
AT 386	
ATT4410	
HP 700-92/96	70092, 70094, 70096, 2392A, 2622A
HZ1500	
IBM3151	Mod11, Mod31
IBM3270	3278-2 (24x80), 3278-3 (32x80), 3278-4 (43x80), 3278-5 (27x132), 3278-2-E (24x80), 3278-3-E (32x80), 3278-4-E (43x80), 3278-5-E (27x132), 3279-2 (24x80), 3279-3 (32x80), 3279-4 (43x80), 3279-5 (27x132), 3287-1
IBM5250	5291-1, 5292-2, 5251-11, 3179-2, 3196-A1, 3180-2, 3477-FC (27x132), 3477-FG (24x80), 3486-BA, 3487-HA, 3487-HC, 3812-1
SCO Console	
Stratus V102	
TA6530	
TVI910	
TVI920	
TVI925	
TVI950	
TVI955	
VT52, VT100, VT100+, VT500 (7- or 8-bit)	VT100, VT101, VT102, VT125, VT131, VT132, M2200, VT220, VT240, VT320, VT340, VT420, VT510, VT520, VT525
VT HP220, VT UTF8	VT100, VT101, VT102, VT125, VT220, VT240, VT320, VT340, VT420, VT131, VT132, M2200, VT510, VT520, VT525
VT PCTerm	
Wyse PCTerm	
WY50	
WY50+	
WY60	

NOTE: Wireless features, performance and support may vary depending on environmental variables such placement, settings and firmware of your access points. Please contact your wireless vendor for support of your wireless environment.

LANGUAGES (Local User Interface)

The following local user interface languages are available for Windows Embedded Standard 7:

English, French, German, Spanish, Dutch, Norwegian, Korean, Simplified Chinese, Traditional Chinese, Japanese, Russian, and Arabic

Technical specifications

The following local user interface languages are available for HP ThinPro and HP Smart Zero Technology:

English, French, German, Spanish, Korean, Simplified Chinese, Traditional Chinese, and Japanese

DIMENSIONS (WxDxH)

	HP t620 (vertical orientation)	HP t620 PLUS (vertical orientation)
With stand	8.7 x 1.6 x 9.5 in 22 x 4 x 24 cm	8.7 x 2.6 x 9.5 in 22 x 6.5 x 24 cm
NOTE: Dimensions are approximate		

WEIGHT

	HP t620	HP t620 PLUS
With stand	3.0 lb 1.36 kg	4.5 lb 2.04 kg
Shipping weight	10.21 lb 4.63 kg	11.16 lb 5.06

NOTE: Weights are approximate. Optional add-ins or customer add-ins will increase these weights.

VOLUME

	HP t620	HP t620 PLUS
	2.11 liters	3.43 liters

NOTE: Volumes are approximate.

POWER SUPPLY

HP t620 thin client		HP t620 PLUS thin client	
65W external power adapter Worldwide auto-sensing 100-240 VAC, 50-60 Hz Energy-saving automatic power-down Surge-tolerant		85W external power adapter Worldwide auto-sensing 100-240 VAC, 50-60 Hz Energy-saving automatic power-down Surge-tolerant	
External power adapters are sourced from a number of suppliers in order to ensure adequate supply and availability is maintained. The actual dimensions of the power brick will vary by supplier.			
Chicony Delta Bestec LiteOn	126 x 50 x 30 mm 108 x 46 x 29.5 mm 116 x 50 x 30 mm 113.5 x 55 x 30 mm	Bestec LiteOn	132 x 55.5 x 30.6 mm 146 x 55 x 31 mm

ENVIRONMENTAL

Operating temperature range	Standard 50° to 104° F (10° to 40° C Using Quick Release with a flat panel monitor 50° to 95° F (10° to 35° C) Using PCIe Expansion Card 50° to 104° F (10° to 40° C) **t620 with Fiber NIC:** 50° to 95° F (10° to 35° C)
Non-operating temperature range	-22° to 140° F (-30° to 60° C)
Humidity	Condensing 20% to 80%

Technical specifications

	Non-condensing 10% to 90% non-condensing
NOTE: Specifications are at sea level with altitude derating of 1° C/300m (1.8° F/1000ft) to a maximum of 3 Km (10,000 ft), with no direct, sustained sunlight. Upper limit may be limited by the type and number of options installed.	

REGULATORY COMPLIANCE

Ergonomics	Approved
Safety	UL 1950, CSA 950; TÜV-GS (EN60 950); approved
RF Interference	FCC Class B; CE Mark; EN55022B; VCCI

Environmental Data

HP t620 Thin Client

Environmental Data

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- US ENERGY STAR®
- IT ECO Declaration
- EPEAT <Gold> registered in the United States. See http://www.epeat.net for registration status in your country.

Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation (Short idle)	9.64 W	9.63 W	9.71 W
Normal Operation (Long idle)	8.98 W	8.99 W	8.98 W
Sleep	3.25 W	3.22 W	3.22 W
Off	2.49 W	2.42 W	2.49 W

Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation (Short idle)	33 BTU/hr	33 BTU/hr	33 BTU/hr
Normal Operation (Long idle)	31 BTU/hr	31 BTU/hr	31 BTU/hr
Sleep	11 BTU/hr	11 BTU/hr	11 BTU/hr
Off	9 BTU/hr	8 BTU/hr	9 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive -2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the <gold> level, see www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 14.5% post-consumer recycled plastic (by wt.)
- This product is 94.4% recycle-able when properly disposed of at end of life.

Packaging Materials

- External:

- PAPER/Corrugated 118.8 g
- Internal:
  - PLASTIC/Polyethylene low density 19.2 g
  - PLASTIC/EPE-Expanded Polyethylene 62.7 g

HP t620 PLUS Thin Client

Environmental Data

Eco-Label Certifications & declarations

This product has received or is in the process of being certified to the following approvals and may be labeled with one or more of these marks:

- US ENERGY STAR®
- IT ECO Declaration
- EPEAT <Gold> registered in the United States. See http://www.epeat.net for registration status in your country.

Energy Consumption (in accordance with US ENERGY STAR® test method)	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation (Short idle)	15.34 W	14.85 W	15.31 W
Normal Operation (Long idle)	15.04 W	14.54 W	14.98 W
Sleep	3.17 W	3.14 W	3.15 W
Off	2.74 W	2.66 W	2.72 W

Heat Dissipation*	**115VAC, 60Hz**	**230VAC, 50Hz**	**100VAC, 60Hz**
Normal Operation (Short idle)	52 BTU/hr	51 BTU/hr	52 BTU/hr
Normal Operation (Long idle)	51 BTU/hr	50 BTU/hr	51 BTU/hr
Sleep	11 BTU/hr	11 BTU/hr	11 BTU/hr
Off	9 BTU/hr	9 BTU/hr	9 BTU/hr

* Heat dissipation is calculated based on the measured watts, assuming the service level is attained for one hour.

Additional Information

- This product is in compliance with the Restrictions of Hazardous Substances (RoHS) directive -2011/65/EC.
- This HP product is designed to comply with the Waste Electrical and Electronic Equipment (WEEE) Directive - 2002/96/EC.
- This product is in compliance with California Proposition 65 (State of California; Safe Drinking Water and Toxic Enforcement Act of 1986).
- This product is in compliance with the IEEE 1680 (EPEAT) standard at the <gold> level, see www.epeat.net
- Plastics parts weighing over 25 grams used in the product are marked per ISO 11469 and ISO1043.
- This product contains 17.3% post-consumer recycled plastic (by wt.)
- This product is 95.6% recycle-able when properly disposed of at

end of life.

Packaging Materials

- External:
  - PAPER/Corrugated 118.8 g
- Internal:
  - PLASTIC/Polyethylene low density 19.2 g
  - PLASTIC/EPE-Expanded Polyethylene 48.3 g

HP t620 Thin Client and HP t620 PLUS Thin Client

RoHS Compliance

Hewlett-Packard is committed to compliance with all applicable environmental laws and regulations, including the European Union Restriction of Hazardous Substances (RoHS) Directive. HP's goal is to exceed compliance obligations by meeting the requirements of the RoHS Directive on a worldwide basis. By July 1, 2006, RoHS substances will be virtually eliminated (virtually = to levels below legal limits) for all HP electronic products subject to the RoHS Directive, except where it is widely recognized that there is no technically feasible alternative (as indicated by an exemption under the EU RoHS Directive).

Material Usage

This product does not contain any of the following substances in excess of regulatory limits (refer to the HP General Specification for the Environment at: http://www.hp.com/hpinfo/globalcitizenship/environment/supplychain/gen_specifications.html):

- Asbestos
- Certain Azo Colorants
- Certain Brominated Flame Retardants - may not be used as flame retardants in plastics
- Cadmium
- Chlorinated Hydrocarbons
- Chlorinated Paraffins
- Formaldehyde
- Halogenated Diphenyl Methanes
- Lead carbonates and sulfates
- Lead and Lead compounds
- Mercuric Oxide Batteries
- Nickel - finishes must not be used on the external surface designed to be frequently handled or carried by the user.
- Ozone Depleting Substances
- Polybrominated Biphenyls (PBBs)
- Polybrominated Biphenyl Ethers (PBBEs)
- Polybrominated Biphenyl Oxides (PBBOs)
- Polychlorinated Biphenyl (PCB)
- Polychlorinated Terphenyls (PCT)
- Polyvinyl Chloride (PVC) - except for wires and cables, and certain retail packaging has been voluntarily removed from most applications.

Environmental Data

- Radioactive Substances
- Tributyl Tin (TBT), Triphenyl Tin (TPT), Tributyl Tin Oxide (TBTO)

Packaging

HP follows these guidelines to decrease the environmental impact of product packaging:

- Eliminate the use of heavy metals such as lead, chromium, mercury and cadmium in packaging materials.
- Eliminate the use of ozone-depleting substances (ODS) in packaging materials.
- Design packaging materials for ease of disassembly.
- Maximize the use of post-consumer recycled content materials in packaging materials.
- Use readily recyclable packaging materials such as paper and corrugated materials.
- Reduce size and weight of packages to improve transportation fuel efficiency.
- Plastic packaging materials are marked according to ISO 11469 and DIN 6120 standards.

End-of-life Management and Recycling

Hewlett-Packard offers end-of-life HP product return and recycling programs in many geographic areas. To recycle your product, please go to: http://www.hp.com/go/reuse-recycle or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/recyclers. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Hewlett-Packard Corporate Environmental Information

For more information about HP's commitment to the environment:

Global Citizenship Report
http://www.hp.com/hpinfo/globalcitizenship/gcreport/index.html
Eco-label certifications
http://www.hp.com/hpinfo/globalcitizenship/environment/productdesign/ecolabels.html
ISO 14001 certificates:
http://www.hp.com/hpinfo/globalcitizenship/environment/operations/envmanagement.html

Options and Accessories (sold separately)

		Part #
Accessories	HP Quick Release Kit	EM870AA
	HP Integrated Work Center Stand	G1V61AA
	HP ProDisplay Companion Stand	J7V21AA
	HP t620 Rear Port Cover	F4N53AA
	HP t620 PLUS Rear Port Cover	F4N54AA
Memory Upgrade	HP 4 GB DDR3-1600 SODIMM Kit	B4U39AA B4U39AT
	HP 8 GB DDR3-1600 SODIMM Kit	B4U40AA B4U40AT
Communications	HP USB-to-Serial Adapter[1]	J7B60AA
	HP USB Business Webcam	D8Z08AA
Input Devices	HP PS/2 Keyboard	DT527A
	HP USB Keyboard	DT528A
	HP USB CCID Smartcard Keyboard	BV813AA
	HP USB CCID Smartcard Keyboard (bulk pack)	BT824A6
	HP Wireless Keyboard & Mouse (note: function keys do not operate with Smart Zero Core)	QY449AA
	HP PS/2 Optical Mouse	EY703AA
	HP USB Optical Scroll Mouse	DC172B
Graphics	DisplayPort to DVI-D Adapter	FH973AA/AT
	DisplayPort to VGA Adapter	AS615AA
	Display Port to HDMI adapter	BP937AA
	DisplayPort Cable Kit	VN567AA
	HP DMS-59 to dual VGA Adapter (for use with t620 PLUS quad-head models only)	GS567AA
	HP DMS-59 to dual DVI-I Adapter (for use with t620 PLUS quad-head models only)	DL139A
	HP DMS-59 to dual DisplayPort Adapter (for use with t620 PLUS quad-head models only)	XP688AA
Storage	HP 64GB MLC M.2 Solid State Drive	F3V79AA
Security	HP Keyed Cable Lock	BV411AA

[1] Option, drivers, warranty, and support are available directly from third party.
[2] Drivers must be installed. For a complete list of monitors compatible with HP thin clients, it is important to cross-reference the supported video resolutions of the HP thin client to the supported resolutions of the monitor. Most HP monitors have one or more supported resolutions that match HP thin client products.
[3] Supported on HP t620 WES7P and WE 8S thin clients
[4] Multi-touch only supported on HP t620 WES7P and WE 8S thin clients

Summary of Changes

Date of change:	**Version History:**		**Description of change:**
May 29, 2014	v4 to v5	Changed	Energy Star compliances and power specifications
		Added	Part numbers and ID PubNumber
June 30, 2014	v6 April 2014 to v7 June 30	Changed	Storage
		Added	Version number, At A Glance, Operating Systems, Memory, Storage, Monitor Configurations, Input/Output, Wireless LAN, HP Fiber Fast Ethernet Network Interface Card, I/O Port, Slots & Connectors, and Volume were revised.
		Removed	
October 24, 2014	From v7 to v8	Changed	Software compatibility matrix
		Removed	t620 Standard Chassis and flash drive options, Overview Software Features - Citrix and VMWare plugin options

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